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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Grandfathered Short-Spaced	)	MM Docket N. 96-120
FM Stations	)	RM-7651

COMMENTS OF CHARLES I. GALLAGHER, P.E.

These comments are related to the Notice of Proposed Rulemaking as titled above and are the comments and opinions of the undersigned an no other.

Second and Third Adjacent Channel Issues

In its Notice of Proposed Rulemaking, the Commission discusses, at paragraph 2 and at paragraph 8, Proposal 2, that it proposes to eliminate the second and third adjacent channel spacings for grandfathered short-spaced stations, and, in effect, return to the procedures adopted in §73.213 in 1964. Past experience with the rule as in effect at that time indicates that the proposed change would allow greater flexibility in site location for those stations and, in general, would be in the public interest. Marketplace restraints dictate that no station would undertake such a move without an improvement in service. Second and third adjacent channel interference affects a small area around the transmitting site. As a result, in almost every case, the gain in service more than outweighs the small loss of service due to interference. For this reason the undersigned supports this proposed rule change.

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However, there is one potential problem of concern. Unless limited by other factors, it would be possible for the short-spaced station to reduce its separation to zero and to co-locate with a station operating with a frequency difference of only 400 kHz or 600 kHz. Such an operation is likely to involve serious intermodulation interference problems. Although transmitter generated products are regulated under §73.317, receiver generated intermodulation interference is not, and could result in complaints to the FCC of serious interference problems. Some limitation in site location in these cases should be considered. In the absence of experience in this matter, and since intermediate frequency (I.F.) problems are also intermodulation related, it may be prudent to adopt similar separation restrictions or to prohibit overlap of 36 mV/m contours.

Grandfather Definition

At footnote 1 the Commission clearly limits this rulemaking to those stations that were short-spaced as of November 16, 1964. The Commission rightly points out that "these stations became short-spaced through no fault of their own due to a change in the Commission's rules." There is another large group of class A and Class B stations that have found themselves short-spaced to second or third adjacent channel class B stations, as a result of the change in separation requirements adopted April 1984 in MM Docket No. 80-90. These station also "became short-spaced through no fault of their own due to a change in the Commission's

rules." Although they were given a limited time to take advantage of the change in rules, many could not because of financial or other reasons.

The changes related to class B stations adopted in Docket No. 80-90, increased the separation requirements for class A stations from 40 miles (64.36 kilometers) to 69 kilometers and for class B stations from 40 miles to 74 kilometers. As an example, a station located 64 kilometers from a second or third adjacent channel class B station met the separation requirements prior to adoption of Docket No. 80-90, but is now short-spaced by either 5 kilometers or 10 kilometers. Worse yet, the change in definition of class B protected contour from 1 mV/m (average radius of 52 km.) to 0.5 mV/m (average radius of 65 km.) means that the short-spaced station is now located within the protected contour. As a result, these stations have no recourse under §73.215 of the rules, and must move their transmitting sites away from the class B (if possible) in order to improve their service to the public. If these stations were included in the scope of this rulemaking, they would be free to relocate and improve their facilities, such as move to an existing tall tower, to permit more efficient increase in service to the public. For the above reasons, the Commission should expand the scope of this rulemaking to include these short-spaced stations.

At paragraph 26, the Commission invites comments regarding concerns that allowing a short-spaced second or third adjacent channel station to reduce spacing may cause, in some cases, interference to a station where some interference does not now occur This would happen where the short-

spaced station is not now near the protected contour of the other station and the facilities change might cause interference for the first time. It is believed that the Commission is overly concerned. There are also some cases where a fully-spaced station is now within the protected contour of a second or third adjacent channel station, and therefore, causing interference to that station, even though it is not "objectionable" interference. As discussed earlier, interference to second or third adjacent channel stations usually affects a very small area in the vicinity of the transmitting site, and in almost every case, marketplace decisions result in a gain in service that more than outweighs the small loss of service. It is believed that the Commission should follow the procedures set forth in paragraph 25, and that the implementation of the procedures set forth in paragraph 26 would be more difficult to administer.

Codify Interference Calculations

Although clearly set forth in International Agreements, the rule change discussed at paragraph 14, and at footnote 20, and in Appendix A (§73.213(a)(1), for the first time codifies in the Commission Rules, the procedure for calculation of the extent of interference caused when prohibited overlap of contours occurs. The lack of such a rule has been a problem in the past, particularly in hearing cases, where it has been so difficult to convince parties of an otherwise obvious engineering fact. It is the opinion of the undersigned that this rule has been long needed, and for that reason is wholeheartedly supported.

Further, the proposed change in focus from no increase in location of the 1 mV/m service contour to the location of the interference contours clearly identifies the intent of the rule: that no additional interference should be caused. This change is also supported.

If the Commission would add to this rule the ratio of interference and procedures for the calculation of second and third adjacent channel interference, it would make the tools available for comparisons of interference in these cases should the need arise.

Certification

I, Charles I. Gallagher, certify under penalty of perjury that these comments in rulemaking are my comments and opinions. I further state that I am a Consulting Radio Engineer, and a Registered Professional Engineer in the State of Maryland, Registration No. 11415, that my qualifications are a matter of record with the Federal Communications Commission, having been presented on previous occasions, and that I have been a consulting engineer to the broadcasting industry for more than forty years. The contents of these Engineering Comments are true and correct to the best of my knowledge, information and belief

Charles I. Gallagher

July 18, 1996